

In Section I of this report, the evolution of the cable industry was discussed. It is clear from that discussion that the cable industry is no longer in its infancy, but rather is a fully developed and formidable industry, as is the telecommunications industry. As can be seen from the data provided in tables contained in Section I, the cable and telecommunications companies are large and well-established. Electric utilities are certainly not bargaining with local "mom and pop" cable or telecommunications companies with little resources and no market knowledge. This bargaining relationship is one in which electric utilities face highly sophisticated cable and telecommunications companies with vast economic resources at their disposal. The size and level of sophistication of cable and telecommunications companies are not surprising when one looks at these companies' market presence.

In 1995, the top 20 cable companies combined constituted almost 74% of the entire market for cable services. In contrast, the top 20 electric utilities combined constitute less than 47% of the market for electric customers.⁴⁷ The largest cable company, TCI, serves well over 12 million customers across a multi-state region. In contrast, the largest investor-owned utility in the country, Pacific Gas and Electric, serves approximately 4 million customers in northern California.⁴⁸ These data reveal the cable companies' overwhelming market presence.

Recognition of the market presence of cable and telecommunications companies is important because it augments the set of alternatives, and thus the bargaining options available to these companies. In a bilateral bargaining relationship, the availability of options or alternatives strengthens bargaining power.

As was previously mentioned, the cable and telecommunications companies have alternatives to utility poles and conduits. As noted earlier in this report, these alternatives must be recognized before a meaningful measure of market concentration can be constructed. The

⁴⁷ Data for cable companies: Federal Communication Commission, CS Docket No. 96-133, Third Annual Report, p. 122. Data for electric utilities: Utility Data Institute, *Pocket Guide To Electric Utilities*, Fourth Edition.

⁴⁸ *Ibid.*

presence of these alternatives also strengthens the bargaining position of cable and telecommunications companies, as does their sheer market presence.

In a bilateral bargaining relationship, the ability to "walk away from the table" serves as a credible "threat." The cable and telecommunications companies can present a very effective "threat" to the electric utilities as a result of the availability of alternatives and their market presence. The electric utilities, on the other hand, have no credible bargaining threats.

Cable and telecommunications companies can achieve their business goals in one of three ways. First, they can successfully negotiate with an electric utility for access to its poles or conduits. Second, they can pursue the myriad of alternatives to a utility's poles or conduits identified earlier. Finally, given their market presence, they can pursue a strategy that, in some cases, circumvents the local electric utility entirely. That is, the cable or telecommunications company may desire access to a utility's pole or conduits simply as a means to traverse the utility's service territory en route to a target market elsewhere. In many instances, the cable and telecommunications companies serve a geographical area that includes, but is not limited to, the electric utility's service territory. Given the geographical reach of the cable and telecommunications companies, they can reroute and find alternative utility providers.

The electric utilities do not have the same alternatives as those available to the cable and telecommunications companies. If the electric utilities are unsuccessful at striking a bargain with the cable and telecommunications companies, the available capacity on poles and in conduits goes unused. In the absence of successful negotiation, the electric utilities forego revenue. One might be tempted to suggest that the electric utilities can simply search out a new cable or telecommunications company and attempt to market the available capacity. While this is, in fact, true, two issues about this solution can be observed. First, given the concentration in the cable and telecommunications industries, within the electric utility's service territory, the utility's success in finding an alternative cable or telecommunications company is not guaranteed. Second, if an alternative company is found and the utility is successful in marketing the available capacity at the price the initial company rejected, then economic efficiency is enhanced in that

the cable or telecommunications company who valued the capacity the highest obtained it.

The point to the preceding discussion is that when the negotiations fail, there is little to no economic consequence to the cable or telecommunications company given the available alternatives. However, there is an adverse financial consequence to the electric utilities in that they lose the entire revenue stream that would have resulted from the available capacity. *This issue cannot be overemphasized.*

The bargaining position of the cable and telecommunications companies is actually far superior to that of the electric utilities. The former can, in effect, "pit" the electric utilities against the alternative providers of capacity. The cable and telecommunications companies recognize that the electric utilities must negotiate with them as there are no other practical uses for the available pole and conduit capacity. The cable and telecommunications companies, however, are not similarly constrained in their options simply because of the availability of alternatives to the utilities' available capacity.

By way of analogy, the situation between the cable and telecommunications companies and the electric utilities is somewhat similar to a city that leases space on the outside of its bus fleet for advertising. The space on the bus exterior has no commercial value other than advertising. Thus, if the city is unsuccessful at leasing the space for advertising, the space goes unused and the city receives nothing. From the perspective of the advertiser, there are clearly many alternatives to leased space on a bus for its advertisement. The advertiser can use television, radio, billboards, magazines, newspapers, the Internet, etc. Clearly, the city can in no way attempt to extract anything above the competitive value for the advertising space and will likely negotiate far less. Although this example is somewhat analogous, the bargaining position held by the electric utilities is actually far less favorable than that of the city. The city is faced with a multitude of advertisers all vying for space. Electric utilities are faced with a relatively concentrated group of cable and telecommunications companies. The city can, if negotiations fail, seek out another advertiser with relative ease. In contrast, the electric utility has no such guarantee given the concentration of the cable and telecommunications industries.

The preceding discussion merely highlights the unequal nature of the bargaining relationship between electric utilities and cable and telecommunications companies. While it is difficult to quantify the relative strength of each party's bargaining power, this does not diminish the fact that such inequality exists.

In this section, the relevant analytical criteria to be used to evaluate the market for pole attachments and conduit access were discussed. At the outset, the discussion highlighted the inappropriateness of applying an essential facilities designation to the poles and conduits owned by electric utilities. In addition, as part of the discussion, a distinction between the structuralist and behavioralist approaches was drawn. As discussed, the former standard is entirely inappropriate for the task at hand. A more suitable approach would employ a behavioral standard and would recognize the competitive dynamics and bargaining positions of all the parties involved. It is clear from the discussion that the electric utilities are motivated to provide and bargain for access to their available capacity. It is also clear that the utilities possess no bargaining advantage over cable and telecommunications companies as a result of the market presence and bargaining options available to them.

The discussion in this section leads to a clear analytical conclusion. *A negotiated pricing framework should be employed in the market for pole attachments and conduit access.* There should be no concern over utilities' ability to engage in anti-competitive behavior. The negotiation process should be preferred in that this process will yield appropriate market-based prices that will enhance economic efficiency. If the FCC does not agree with this finding, the goal of economic efficiency should continue to guide the FCC's choice of pricing framework. Given this goal, the only alternative for the FCC to pursue is a cost-based pricing framework based on the economic or replacement value of capital.

Section VII. An Alternative Second-Best Pricing Framework

In the absence of negotiated rates, the FCC should employ a cost-based pricing framework based on the economic value of capital. The economic value of capital investment is equivalent to the forward-looking cost concepts already embraced by the FCC in the

Interconnection Order. As previously mentioned, the FCC explicitly rejected a pricing framework based on embedded costs in favor of a cost-based framework based on forward-looking costs. In particular, the FCC determined that ILECs' plant investment should be valued at a forward-looking replacement cost. Moreover, the replacement value should be based on the most efficient technology. The FCC chose a forward-looking economic cost approach because it generated prices most consistent with a competitive market. As such, the FCC concluded that resources in the industry would be most efficiently allocated.

The FCC closely followed the recommendations of economists when it chose a forward-looking economic cost approach in lieu of an approach based on embedded historical costs. In choosing the appropriate pricing framework for poles and conduits, the FCC should adhere to the same set of economic principles.⁴⁹ The choice of a forward-looking framework is consistent with relevant economic principles and the guiding statute.

A. Section 224(d) Requires That Rates Be Established with Reference to Actual Capital Costs

Under this statute, the FCC is required to establish a just and reasonable rate. The statute, of course, does not provide a specific formulaic calculation, but does indicate that the rate shall be determined with reference to the amount of space occupied by the attachment, the operating expenses and actual capital costs of the utility.

The utility's actual capital costs are forward-looking economic costs. The modifier "actual" must be interpreted to include the economic cost of capital that is based on forward-looking costs. Economists have long made distinctions between accounting and actual or economic profits. Accounting profits are, of course, calculated as the difference between revenues and booked accounting costs. Economic profit, on the other hand, is the difference between the revenue a firm receives and the costs that it incurs. The costs that a company

⁴⁹ Currently, the Commission's "TELRIC" pricing decision is on appeal in the U.S Court of Appeals for the Eighth Circuit. Regardless of the outcome of this appeal, the Commission should continue to be guided by the same economic principles that underlie our recommendation in this section. The appeal, if successful, will not in any way alter the fundamental economic support for our recommendation.

incurs, however, are not limited to those on the "books." They are all costs, including opportunity costs. All such costs are based on the actions of a firm, which include *actual* production activities. In deciding which activities to pursue, the firm must account for the opportunity cost associated with their capital investment. Specifically, this opportunity cost is the return the owners of a firm could make if their capital was invested elsewhere. This is an entirely forward-looking notion and has no relevance to the capital costs on a firm's books.⁵⁰ Accounting costs, however, have little if any similarity to the actual or economic costs of a firm. Therefore, it is expected that actual or economic profits will differ from accounting profits.

Actual or economic costs reflect a resource's market value that is objective and reflects the cost of providing an incremental unit of a good or service. In the case of capital investment, the replacement cost would be incurred going forward. It is an important concept in that resources will not be allocated to their highest-valued uses if accounting costs are the basis upon which resources are deployed.

Aside from the economic meaning of the term "actual," additional reasons exist to explain why one must conclude that actual, as defined in the statute, cannot be interpreted or limited strictly to embedded costs. Upon reading the statute, one is left to conclude that the term "actual" must encompass a much broader interpretation. The statute mandates that the FCC establish a just and reasonable rate. From this, one cannot conclude that rates must be based on historical embedded capital costs. To suggest such a course of action is tantamount to claiming that the just and reasonable standard can be met only by employing embedded costs, which clearly is not the case. Numerous agencies and courts have affirmed the principle that the result, not the framework, determines whether a rate is just and reasonable.⁵¹

It is clear that the just and reasonable standard does not limit the ratemaking process to

⁵⁰ See Hal Varian, *Microeconomic Analysis*, Third Edition, p. 23, and Robert S. Pindyck and Daniel Rubinfeld, *Microeconomics*, 1989, p. 270.

⁵¹ See, for example, *Federal Power Commission v. Hope Natural Gas Co.*, pp. 602, 605. In this decision the Supreme Court declared that "Under the statutory standard of 'just and reasonable' it is the result reached not the method employed which is controlling."

historical embedded costs. It is equally clear that the FCC has significant discretion in establishing rates. The current inquiry is evidence of this fact. One issue the FCC must address is how the cost of pole removal should be treated. In particular, the FCC must determine whether these costs should be removed from the accumulated depreciation account. Without regard to whether this is appropriate, the decision to include or exclude these costs will alter utilities' embedded cost structures. If the FCC was forced to rely exclusively on embedded costs, this would not be an option open to debate. The FCC has also considered employing gross instead of net costs capital for ratemaking purposes. Again, if the FCC had no discretion and was forced to adhere strictly to an embedded cost concept, such options would not be available. However, the FCC does have discretion and should employ a capital cost concept consistent with the economic interpretation of actual and the clear precedents already established in the Interconnection Order. The FCC, in the Local Competition Order, has already enunciated why a forward-looking concept is important. The importance of employing replacement costs lies in the adverse consequences to economic efficiency that result if embedded, rather than forward-looking, costs are employed.

B. The Consequences of Not Employing Forward-Looking Capital for Poles and Conduits

The consequences of not employing a forward-looking cost of capital as a means of calculating rates for pole attachments and conduit access can really be thought of as the flip side of doing so. That is, by not employing this proper concept of capital, the subsequent rate structure will:

- Not emulate competitive market prices;
- Not efficiently allocate pole and conduit capacity;
- Not serve as a relevant barometer to trigger efficient entry and exit in the market; and
- Inappropriately subsidize or burden one party.

1. Inability to Emulate Competitive Market Prices

A utility's historical costs have no relevance to current or prospective market conditions.

These costs do not reflect the cost structure faced by a competitive entrant. If used to establish a rate, the historical costs of a utility will not promote allocative or productive efficiency. As previously mentioned, allocative efficiency is achieved through competitive prices in that goods and services are allocated to those who value them the highest. If a rate is based on historical costs that are far below replacement costs, the rate will fall far short of the competitive market equivalent price. As a result, the good or service is not allocated to those who value it the highest, but rather to the first entity in line for the favorable rate. Unfortunately, the firm first in line is not necessarily the most efficient firm, which has long-term negative consequences. When rates are so far below their competitive market value, inefficient firms are shielded from the competitive pressure of more efficient firms. Society's best interests are not served when inefficient firms are shielded from competition. In the present case, an inefficient cable or telecommunications company could acquire access to a utility's pole or conduit at a below-market rate simply by being first in line and could do so at the expense of a more efficient company in that limited pole and conduit space is available. Ultimately, the inefficient cable or telecommunications company could go out of business, leaving an inoperable system. It might be prohibitively expensive to remove the inoperable system, thus preventing other cable or telecommunications companies from utilizing the pole or conduit space. In this case, the negative consequence arose because the resource was allocated neither to that firm which valued it the highest nor to that firm with the most efficient system.

2. Misallocation of Pole and Conduit Capacity

If resource prices do not equate to competitive levels, the resource will either be under-utilized or over-utilized. In the case where prices are set above competitive levels, the resource will be under-utilized. The value of the resource will be relatively more expensive than alternatives, thus leading consumers to direct their purchases to the lower-priced alternative. In the long run, a vast oversupply of the resource will develop as its demand drops. Conversely, if prices are set below competitive levels, consumers will be motivated to employ the resource at the expense of alternatives that are most likely more economically efficient. In the long run, the resource will be over-utilized and in excess demand as owners of the resource decrease investment.

In the case of poles and conduits, the consequences are clear. If prices are below competitive levels, attachers will find poles and conduits the more attractive alternative. Pole and conduit capacity will be over-utilized relative to alternatives. The over-utilization has both short and long-run consequences. In the short run, the use of pole and conduit capacity will be distorted in that it will not be allocated to its highest-valued use. In the long run, this distortion will remain. However, in addition, the investment in alternatives will be thwarted. In pricing pole and conduit capacity below competitive levels, excess demand will be created and with it excess supply in the alternatives to poles and conduits. As a result, investment in alternatives will be diminished, thus long-term growth will be hindered. Absent competitive market pricing, the industry will not develop efficiently.

The development of alternatives to poles and conduits is important for two reasons. First, for a long-term viable market to develop, sufficient alternatives must exist. Lacking sufficient alternatives, the FCC will find itself regulating rates and services for poles and conduits in perpetuity. As the number and quality of alternatives to poles and conduits decline due to hindered investment, the appropriateness of employing market-based pricing will fall. At the same time, the utilities will have no incentive to expand capacity on poles or conduits, thus leading to a long-term decline in these resources. Ultimately, the growth of the cable and telecommunications industry will be affected by both developments.

3. Inadequate Barometer for Entry and Exit

In addition to acting as signals for efficient resource allocation, competitive prices also serve as signals on which firms base their decisions to enter and exit a market. The issue of the signal value for entry and exit applies to entry by cable and telecommunications companies as well as entry by firms offering alternatives to utility poles and conduits. In deciding to enter a market, a cable or telecommunications company seeking access to a utility pole or conduit capacity will factor in the projected revenues and cost associated with serving a particular market. If prices for pole or conduit capacity are below competitive levels, the costs associated with entering the market will necessarily be understated and, as such, make entry more attractive. If priced competitively, the cable or telecommunications company might have chosen

an alternative. As demand for alternatives declines, firms' incentive to provide those alternatives will decline as well, and will be manifested as a decrease in market entry.

4. Subsidies and Burdens from Inappropriate Pricing

The preceding discussion focused primarily on the economic efficiency consequences that result when pole and conduit capacity is not priced at competitive levels. In addition to these consequences, it must be recognized that rates not based on forward-looking economic costs will necessarily subsidize one party to the negotiations at the expense of the other. In the present case, if prices are below competitive levels, the electric utilities are providing a direct subsidy to the stockholders of the cable and telecommunications companies.

When prices for regulated goods and services are not equal to competitive market prices, an economic rent is created. Loosely defined, economic rent is the difference between the market value of a good and the cost incurred by the owner in bringing it to market. In the present case, the economic rent is the difference between the market value of poles and conduit capacity and the established cost-based rate. In competitive markets, the owners of the resource generally enjoy any economic rent.

The issue of economic rent arises frequently in regulated environments. For example, some natural gas pipelines in the Western United States are almost fully depreciated, resulting in a net book value of almost zero. As these are cost-based pipelines, the rates charged to their customers reflect little more than the variable operating costs incurred to run the pipeline. Although the rate for these pipelines might be minimal, their market value can be substantial. Thus, a sizable economic rent is created. As the pipeline customers pay the cost-based rate, they enjoy the economic rent associated with the pipeline.

If rates for pole and conduit capacity are set far below competitive market levels, a sizable rent will be created and will not be enjoyed by the owners of the assets. In short, the utilities will subsidize the stockholders of the cable and telecommunications companies in an amount equivalent to the economic rent associated with the assets. As the electric utilities are

the owners of these assets, they, not the stockholders of the cable and telecommunications companies, should enjoy the economic rent associated with the poles and conduits.

As described in Section VI, the presence of PBR and the reality of electric industry restructuring provide a strong motivation for the electric utilities to keep their distribution costs low. This is achieved, in part, by aggressively marketing available capacity on poles and conduits. The benefit from successfully marketing this capacity and keeping distribution costs low is shared both by the customers and stockholders of the electric utilities. Thus, to the extent that rates are significantly below market levels, both the utilities' stockholders *and customers* are, in effect, subsidizing the stockholders of cable and telecommunications companies.

One might be tempted to argue that the utilities' stockholders and customers are not subsidizing the stockholders of the cable and telecommunications companies. Rather the subsidy is really a benefit to the customers of these companies who enjoy lower prices. This is an ill-founded argument. This argument implicitly assumes that the subsidy received by the cable and telecommunications companies is passed dollar-for-dollar through to their customers. There is nothing to indicate that this is the case. These are not cost-of-service-based regulated companies. Thus, cost savings are not passed through to their customers dollar-for-dollar. As in any unregulated market, the "incidence" of any cost savings or shifting will depend, in part, on the relative elasticities of demand and supply. For example, assuming the demand for cable services is relatively inelastic, one can assume that any cost savings will be primarily retained by the cable company stockholders. One might also be tempted to argue that even if the customers of electric utilities are subsidizing the cable and telecommunications customers, there is little harm simply because they are likely one in the same group. Again, this is an ill-founded argument. There is absolutely nothing to guarantee that the two groups of customers are even remotely related.

In some cases, the benefit of the subsidy enjoyed by cable and telecommunications companies is even more direct than that just described. There is the possibility that the cable and telecommunications companies can generate direct benefits from the resell of pole and

conduit capacity obtained from the electric utilities. For example, there have been instances in which a pole attacher has, without the consent of the utility, "over-lashed" a new cable on an existing attachment and not compensated the utility. Clearly, the existing attacher derives a direct benefit whether the overlashed cable is owned by the company or is attached for the benefit of a third party. In the latter case, the existing attacher is "renting" his capacity on the pole and receiving revenue at a market-based price, but only paying a low, embedded cost rate. Aside from over-lashing, existing capacity holders also have the opportunity to resell any unused system capacity they might have. In fact, in the course of obtaining access to a utility's poles or conduits, an entity might find it advantageous to "over-build" its system with the express intent of reselling available capacity on its cable or fiber network. The motivation to over build is driven directly by the fact that the embedded cost rate for capacity does not reflect, and is quite lower, than the market price for capacity. If successful at reselling capacity, the cable and telecommunications companies effectively capture the full economic rent associated with the capacity to the detriment of the utility's stockholders and customers.

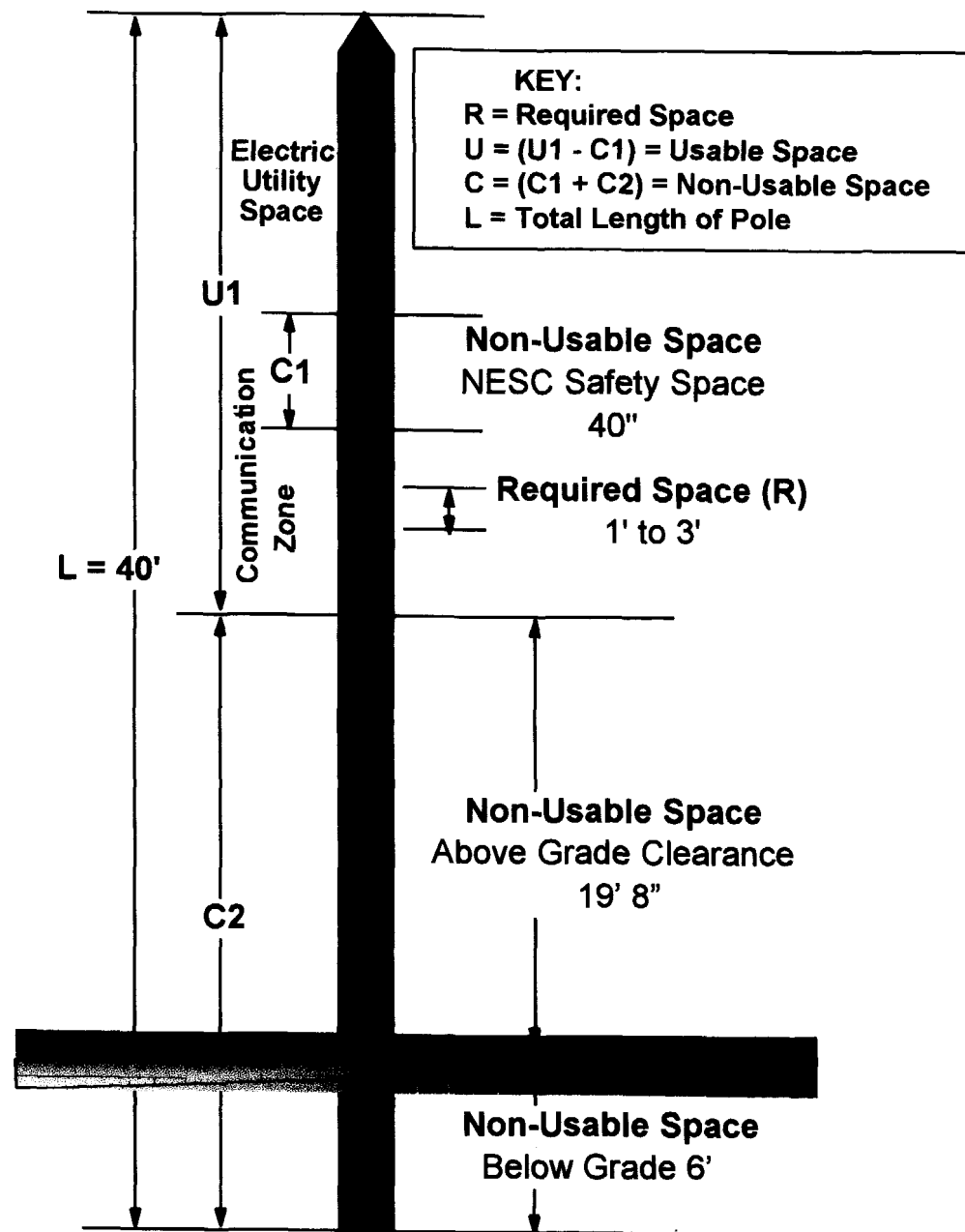
In this section the need for replacement costs versus embedded historical costs was discussed. The FCC has clearly embraced the former in the past and does so now. In the absence of rates calculated using replacement costs, significant distortionary costs will arise and the large cable and telecommunications companies will reap a substantial subsidy at the expense of utility customers.

Conclusion

The 1996 Act was a sweeping endorsement of market-based solutions. The FCC, in its recent pricing decisions for ILECs, has embraced this theme and should do the same for pole attachments and conduit access. The findings of this report support such a position. This report has described the evolution of the cable and telecommunications industries and has outlined the relevant analytical criteria that should be considered when evaluating the appropriateness of a negotiated rate framework. A number of conclusions were drawn. First, the cable and telecommunications industries are mature and consist of well-established, financially strong companies that are capable of effectively negotiating with electric utilities. Second, the poles and conduits owned by electric utilities cannot be considered as essential facilities as a myriad of alternatives are available to cable and telecommunications companies. In light of the alternatives available and the competitive posture of electric utilities vis-à-vis cable and telecommunications companies, negotiated rates should be allowed. If negotiation is allowed to govern transactions between electric utilities and cable and telecommunications companies, the market distortions resulting from the use of inefficient embedded cost ratemaking will be eliminated.

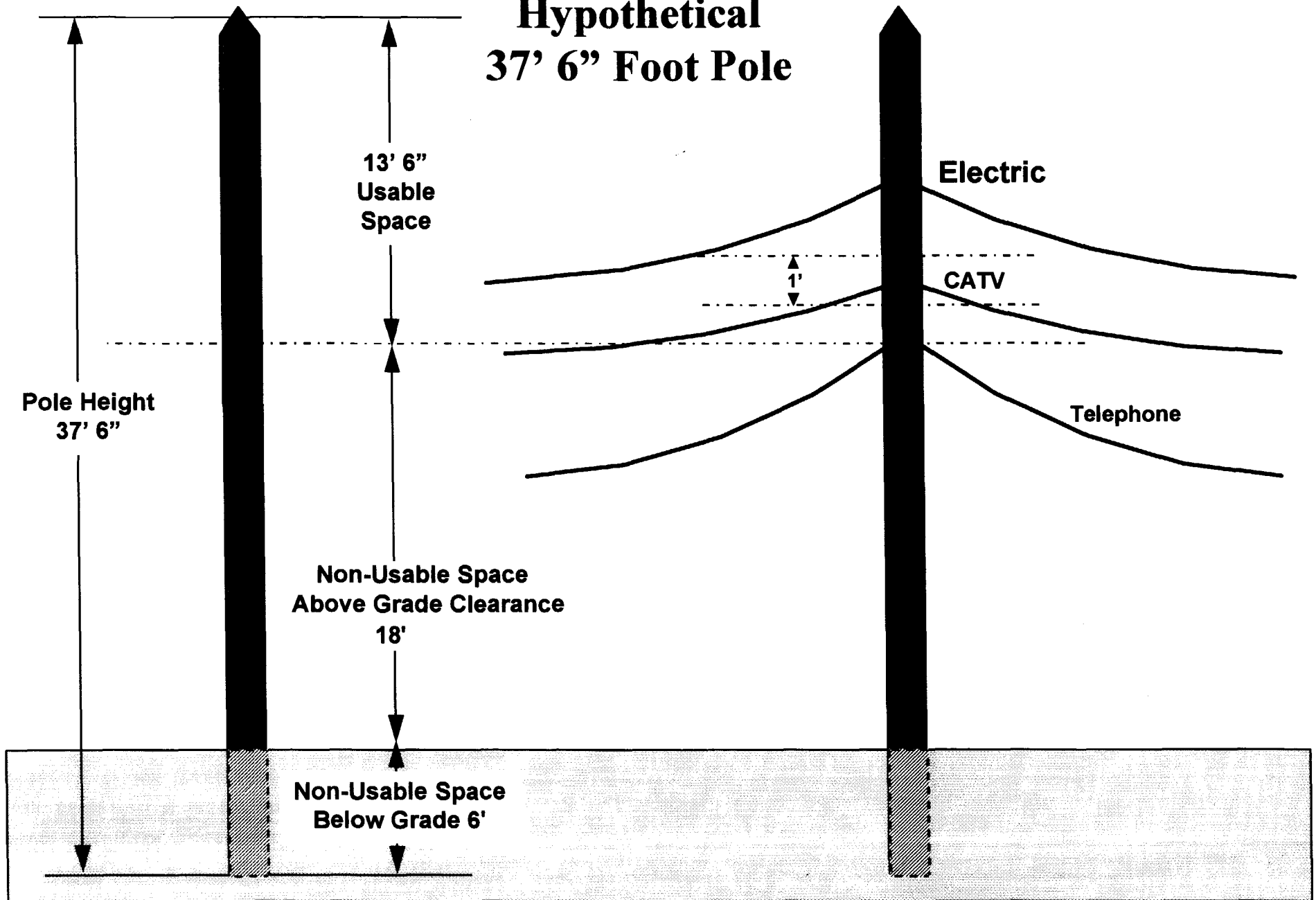
If the FCC chooses not to pursue a negotiated market-based solution, a cost-based ratemaking formula that recognizes the forward-looking replacement cost of invested capital should be employed. A rate structure employing forward-looking economic costs is entirely consistent with what the FCC has adopted for ILECs and can be expected to enhance economic efficiency.

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Hypothetical 37' 6" Foot Pole

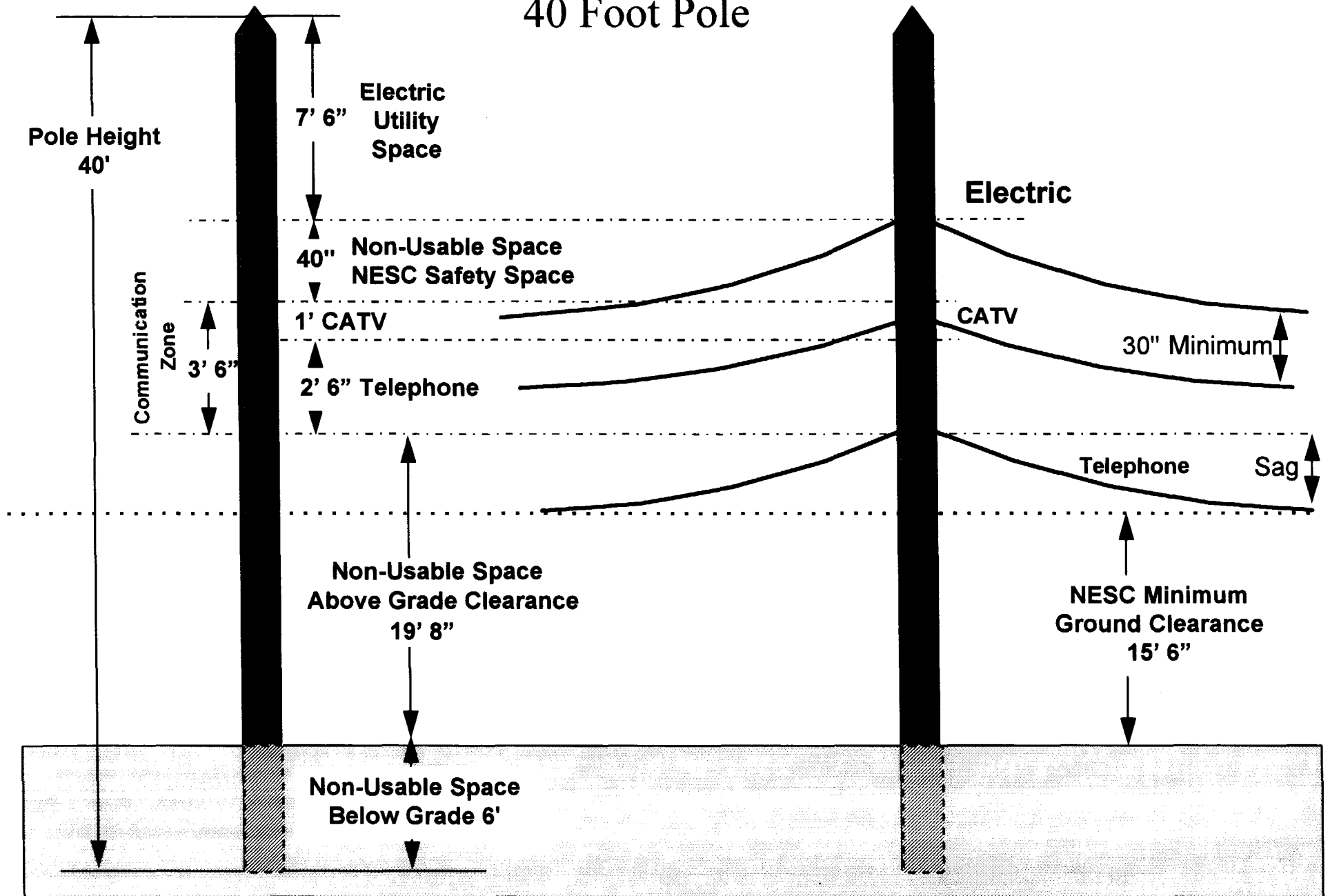




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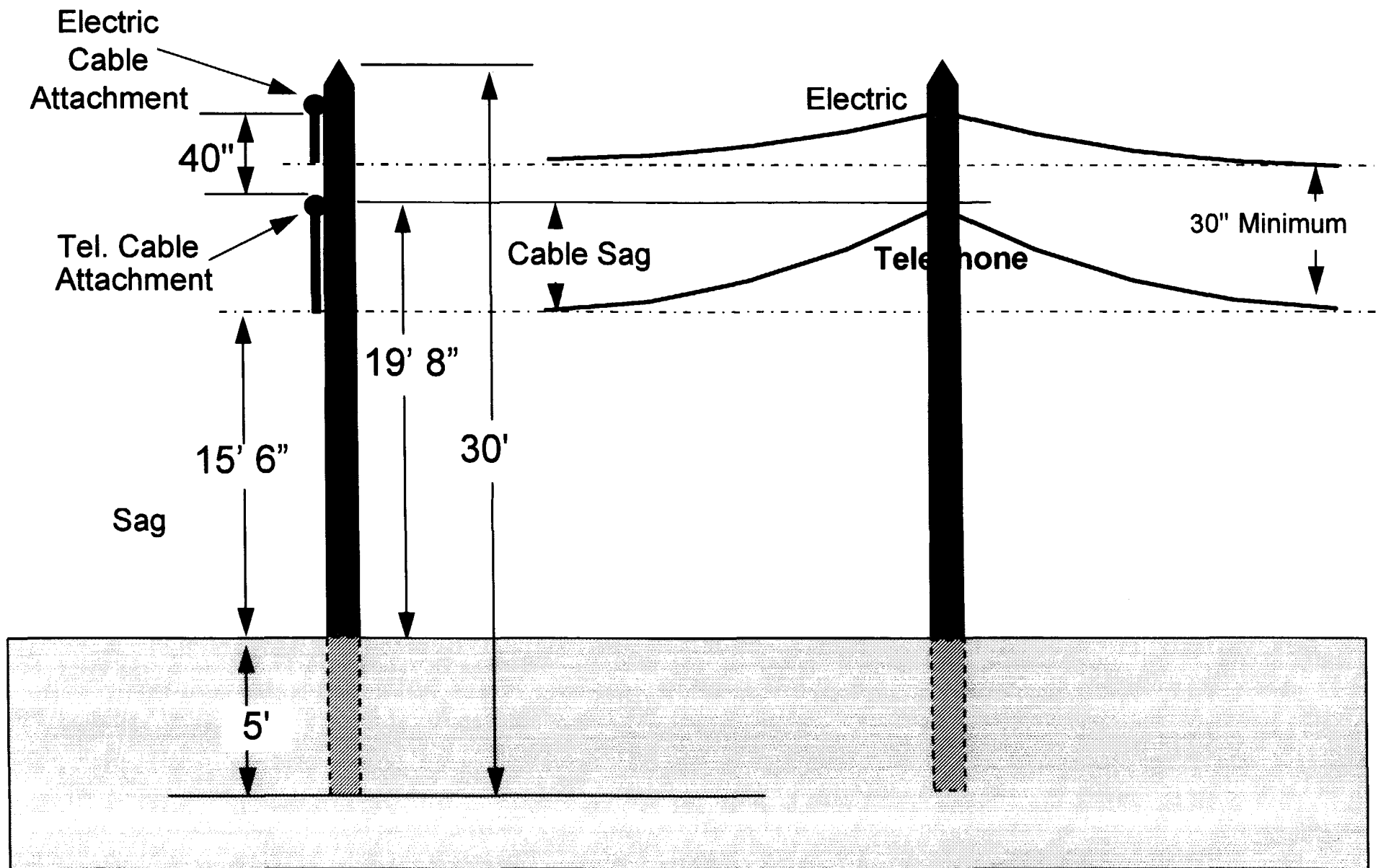
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30 Foot Pole





Electrical Utilities Conduit Systems Components

